

by **JEFF WARSCHAUER** and
CRAIG HUMPHREY

WELL, it's soon to be winter again. Those hot summer days are but memories to many growers, and it's time to winterize your greenhouse. Your greenhouse should be checked inside and out to reduce winter disasters. Beginning on the exterior, check that all of your doors close and seal properly. A poor closing door blown open in the middle of a cold winter night could be disastrous, not to mention potential heat loss.

Repair any holes that your forklift or other equipment might have put in the wall coverings. To increase your usable sunlight during winter's low light levels, wash your roof and wall coverings. Check

Weathering The Winter

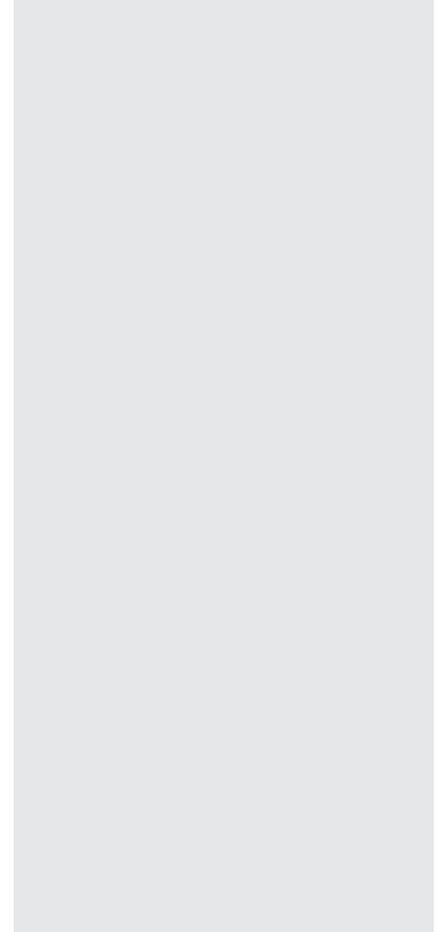
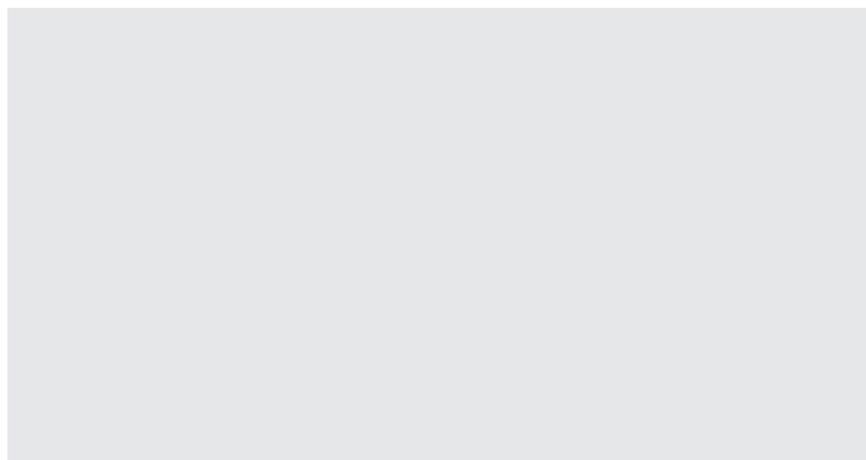
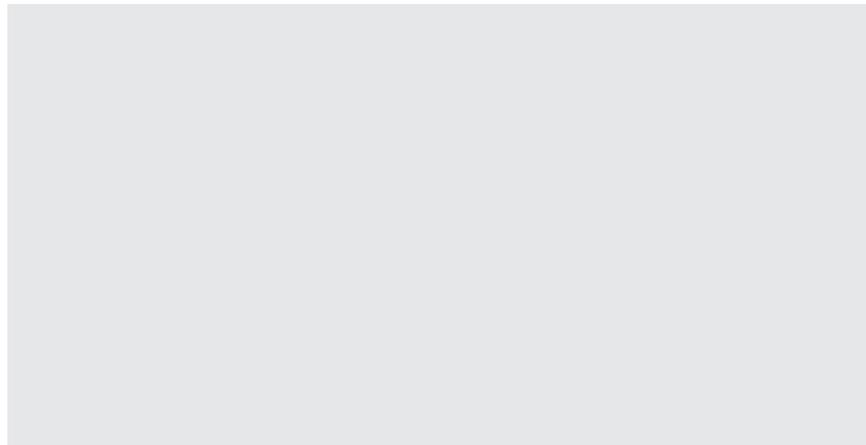


Winter is nearly upon us, so it's time to check up on your structures and other components to make sure you avoid bigger problems come spring.

your poly manufacturer for specific instructions on cleaning. But for the most part, just use warm soapy water – nothing abrasive – and a soft cloth, and it will clean up nicely. Make sure

you specifically clean any place you will be applying poly patch so it will adhere better.

Now for the fun part: inspecting your roof covering. Be sure to look for



STRUCTURES

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any holes or tears. Carry a roll of poly patch tape to repair the poly roof tears and reinstall any lock inserts which might have come loose. You'll also want to clean the gutters to maximize runoff capability from winter storms. Check the gutters for any maintenance that might need to be done.

On the interior, continue the repair of any holes in the covering. This is a

good opportunity to install a manometer in your poly roof. A manometer checks roof pressure and monitors it throughout the year. A properly adjusted inflation fan should maintain a water pressure reading of 0.25 inches.

Check your energy curtains, vents and rack and pinions to ensure that they work properly and close tightly. As you adjust the rack and pinions,



Winterization Checklist:

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| 1 | Doors should close and seal properly. |
| 2 | Inspect and repair holes in wall coverings. |
| 3 | Inspect and repair roof coverings. |
| 4 | Wash wall and roof coverings. |
| 5 | Clean gutters. |
| 6 | Check that your energy curtains work properly. |
| 7 | Adjust your vents to close evenly and tightly. |
| 8 | Inspect your heating system. |
| 9 | Inspect auxiliary equipment. |
| 10 | Service your boilers for pressure and gas supply. |
| 11 | Inspect vent stacks for leaks and obstructions. |
| 12 | Check boilers and pumps for water leaks. |
| 13 | Examine environmental controls. |
| 14 | Drain and clean pad system. |
| 15 | Check back-up generator |
| 16 | Look into off-peak utility discounts. |
| 17 | Call your greenhouse manufacturer's representative to stop by and give any new employees a refresher on basic equipment usage and maintenance. |
| 18 | Put up your over-wintering greenhouse. |
| 19 | Order black poly. |

lubricate them with a dry moly lubricant. Your ventilation equipment should be inspected, and any problem fixed or noted for your spring maintenance program.

Drain your pad system and clean the pads. You may want to take your pad out, and after cleaning, store it for the winter. There are some good bromide cleaners on the market that will clean the calcium from the pads in an environmentally safe fashion. Even in a year-round warm climate, you will want to do periodic cleaning to maximize the efficiency of your unit.

Most importantly, your heating system needs to be inspected. Have a licensed service company do a pre-season check on your boilers or your unit heaters. Have them check your gas supply both for pressure and quality. Fire up all of the heating equipment to check the flame and its color to ensure they are burning properly. Inspect the vent stacks for leaks or obstructions. Check your boilers and pumps for

water leaks and that all zone valves are working properly.

Make sure your auxiliary equipment is running properly, including your HAF fans or fan-jets. Replace any fan-jet tubes that are damaged or torn.

Examine your controls to verify they are adjusted to the correct winter temperature and that any alarms are hooked up and working. Cycle through your heat steps to ensure everything is set correctly.

If you have a back-up generator, now is the time to start it up to avoid any late-night surprises.



Call your local utility company and ask about any off-peak discounts for which you might qualify so that you can factor them in when you set the controls. Ask for a commercial representative. Once you know the times of day you'll be using it, you might be able to make some subtle adjustments to your controls. Some people have saved considerable dollars with just a phone call. Periodically, the gas company sends inserts in your monthly bill offering their consultation at no charge. Take advantage of their expertise.

If you use black plastic to cover your mums, remember that it is sometimes in short supply. Make sure you notify your supplier in plenty of time. For those of you who use an "over-wintering" greenhouse, you may need to call your greenhouse manufacturer to order a Frost Guard or similar structure. These structures will protect your bare root stock and woody ornaments from the wind. Verify that your poly has UV treatment and is not construction grade. **GG**

About the authors: Jeff Warschauer is vice president of sales at Nexus Greenhouse Systems and Craig Humphrey is vice president of engineering for Nexus. You can e-mail Jeff at jeffw@nexuscorp.com and Craig at craigh@nexuscorp.com.